

LAND RECLAMATION COMMISSION

STATE OF MISSOURI

P.O. BOX 176

JEFFERSON CITY, MISSOURI 65102

573-751-4041

Permit To Engage in Surface Mining

LAND RECLAMATION COMMISSION

ISSUES TO

CHRISTY MINERALS, L.L.C.

Pursuant to "The Land Reclamation Act," RSMo, 2001, and on conformity with the statements

In the application, a permit is hereby granted to engage in surface mining of

clay in the state of Missouri. The extent of the

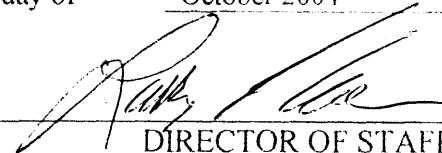
Proposed mining operation(s) will be on 30 acres, more or less.

The locations of the operation(s) under this permit is/are as follows: New

County	Section	Township	Range	Acres Renewed	Acres New	Total Acres	Site/Stream Name	Site Number
Montgomery	02	47N	05W	0	30	30	Dixon	2077

This permit may be suspended or revoked upon violation of any or all of the conditions set forth in "The Land Reclamation Act," RSMo. 2001, or in such rules and regulations as are promulgated pursuant thereto by the Land Reclamation Commission.

IN WITNESS WHEREOF I have hereunto set my hand this 15th day of October 2004



DIRECTOR OF STAFF
Land Reclamation Commission

Permit No. 0946

Effective Date 10/15/2004

Expiration Date 10/14/2005

MO 780-1122 (6-95)

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MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
SITE INFORMATION

MISSOURI LAND
RECLAMATION COMMISSION

P.O. BOX 176
JEFFERSON CITY, MO 65102-0176

Complete this form for each separate area of disturbance associated with mining operations.

SITE NAME OR NUMBER DIXON PIT		PERMIT NUMBER
COMPANY CHRISTY MINERALS, LLC		
COUNTY MONTGOMERY	1/4 SECTION NW	SECTION 2
TOWNSHIP 47	RANGE 5 west	ACRES 30
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)		
MINERAL COMMODITY clay		ESTIMATED TONS/YEAR (GRAVEL SITES)

NAME OF LANDOWNER (ATTACH LIST IF MORE THAN ONE) Bill Saunders - #12 North Wind Dr.- ST. PETERS, MO. 63376 Claude Patterson - #52 Marquette Dr. - Florissant, Mo. 63031		
ADDRESS		
CITY	STATE	ZIP CODE
SOURCE OF RIGHT TO MINE (CHECK ONE): <input type="checkbox"/> MINERAL DEED <input checked="" type="checkbox"/> WARRANTY DEED <input type="checkbox"/> OTHER (DESCRIBE):		DATE OF AGREEMENT 3/20/51
<input type="checkbox"/> LEASE <input type="checkbox"/> VERBAL		

MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE) CHRISTY MINERALS, LLC		
ADDRESS 833 Booneslick Road		
CITY HIGH HILL	STATE MO	ZIP CODE 63350
SOURCE OF RIGHT TO MINE (CHECK ONE): <input type="checkbox"/> MINERAL DEED <input checked="" type="checkbox"/> WARRANTY DEED <input type="checkbox"/> OTHER (DESCRIBE):		DATE OF AGREEMENT 3/20/51
<input type="checkbox"/> LEASE <input type="checkbox"/> VERBAL		

NOTE: Each site must be shown on a map and be included in a public notice and an approved mine plan.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
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MINE PLAN

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JEFFERSON CITY, MO 65102-0176

COMPANY NAME Christy Minerals, LLC		MISSOURI LAND RECLAMATION COMMISSION	
TYPE OF PLAN (CHECK ONE): <input type="checkbox"/> SHORT TERM, FOR ONE PERMIT YEAR <input checked="" type="checkbox"/> LONG TERM, FOR PERIOD THROUGH DATE: <u>6/2004</u> <u>2010</u> <u>7/1/04</u>			
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING (BY APPLICANT OR PRIOR OPERATOR), INCLUDING SOIL, VEGETATION AND TOPOGRAPHY. Heavy wooded area along a ridge with steep slopes on the north and south sides. portions of the area have been cut for timber, leaving small timber, and brush stumps and treetops. Area bordered on west by one large clay pit.			
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.			
A. TOPSOIL			
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COMMISSION PERMITTING 0-3" INCHES		IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE? <input type="checkbox"/> YES OR <input checked="" type="checkbox"/> NO	
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVAL After the area is cleared of brush and vegetation using dozers, the top 18" of soil will be removed using scrapers. The scrapers will deposit the top 18" of soil on piles to be used for reclamation. All top soil will be removed from the active portion of the pit prior to stripping the remaining soil.			
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE AND PROTECTION Top soil will be stored in a pile that is located away from erosion sources on the property. The topsoil piles will be seeded with grasses.			
		SITE NUMBER/NAME Dixon	

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B. SPOIL

DESCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL

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Overburden from the first stripping (SW corner) will be moved with scrappers to complete the dam B on the adjoining property. The first stripping will be mined. After the first cut is mined, the overburden from the second cut will be deposited in it. This will be the site of the future dam B. When dam B is completed we will utilize the previously mined pits for placement of overburden.

C. ACID MATERIALS

DESCRIBE METHODS AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "NONE" BELOW)

NONE

D. PIT INFORMATION (GIVE ALL DIMENSIONS IN FEET)

DESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS

Attached Photo

YES NO

☐
☒

Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?

☐
☒

Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any public road?
(NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right-of-way, and in no case may the excavation be closer to the right-of-way than fifty feet or twenty-five feet plus one and one-half (1½) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)

☒
☐

Will any excavation start at or within fifty feet (50') of any property line?
(NOTE: If the answer is "YES", a safety barrier may be needed.)

PERMIT NO.

SITE NUMBER/NAME

Dixon pit

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RECLAMATION PLAN - 10 CSR 40-10.020(2)(D)2.

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A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #1	PURPOSE OR LAND USE Wildlife	B. SEEDING OR PLANTING TIME Fall
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DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first fall following topsoil replacement the seed mix will be either Broadcast & harrowed or planted with no till drill depending on weather.

Lime and fertilizer will be applied according to recommendations based upon soil test analyses from a qualified soils lab. Mulch will be applied to all slopes exceeding 5:1.

SEEDED SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Common Lespedisa Clover Orchard Grass Rye Wheat Volunteer native species grass - forbes	10#/ acre 6# / acre 10# / acre as needed as needed	Volunteer Trees Cottonwood Pin Oak White oak Cedar Willow	

REVEGETATION MIX #2	PURPOSE OR LAND USE wildlife	B. SEEDING OR PLANTING TIME Spring
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DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the spring after topsoil replacement, re-seeding of orchard grass & Lespedisa, clover will be planted to improve the stand.

Lime and fertilizer will be applied according to recommendations based upon soil test analyses from a qualified soils lab. Mulch will be applied to all slopes exceeding 5:1.

SEEDED SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Clover Orchard grass Lespedisa	15 # / acre 25 # / acre 10 # / acre		

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

PERMIT NO.	SITE NUMBER/NAME Dixon Pit
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DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

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ALL SPOIL AREAS WILL BE GRADED TO SLOPES TRANSVERSABLE BY ~~ADFS~~ ^{ADFS}. ONE-TWO LAKES APPROXIMATELY 2-4 ACRES WILL BE CONSTRUCTED IN THE PIT AREAS. THE LAKES WILL BE CONSTRUCTED AND DESIGNED TO MEET SCS STANDARDS.

GRADING

GRADING WILL BE DONE ON A CONTINUOUS BASIS AS SPOIL IS PLACED IN MINED OUT PORTIONS. FINAL GRADING WILL BE DONE. ~~TOPSOIL IS BEING DEPOSITED AND WILL BE COMPLETE WITHIN 10-14 MONTHS AFTER BACKFILL OF SPOIL.~~ b2 b7C

REPLACEMENT OF TOPSOIL

TOPSOIL WILL BE PLACED ON SPOIL WITHIN 2-3 MONTHS AFTER GRADING IS FINISHED.
TOPSOIL WILL BE REPLACED TO THE SAME DEPTH AS PREVIOUS MINED PORTIONS.

REVEGETATION

REVEGETATION WILL TAKE PLACE WITHIN 1 MONTH OF THE TOPSOIL REPLACEMENT.

AVERAGE DEPTH OF REPLACED TOPSOIL (INCHES)
1½" topsoil plus 16½" subsoil

D. USE OF LAND WHEN RECLAIMED

Estimate acreage of each land use below, after reclamation

ESTIMATED ACRES:

Wildlife (forest or other habitat with livestock excluded)

24

Agricultural (pasture, cropland, and horticultural)

Development (residential, industrial, and recreational)

Water impoundments (for wildlife, agriculture, or development)

6

PERMIT NO.

SITE NUMBER/NAME	DATE	TIME	WIND	WAVE	SWELL	SEA	WAVE PERIOD	WAVE DIRECTION	WAVE HEIGHT	WAVE LENGTH	WAVE FREQUENCY	WAVE ENERGY	WAVE POWER	WAVE PERIOD	WAVE DIRECTION	WAVE HEIGHT	WAVE LENGTH	WAVE FREQUENCY	WAVE ENERGY	WAVE POWER
1	1/1/2020	12:00	10	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
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4	1/1/2020	15:00	18	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
5	1/1/2020	16:00	20	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
6	1/1/2020	17:00	22	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
7	1/1/2020	18:00	25	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
8	1/1/2020	19:00	28	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
9	1/1/2020	20:00	30	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
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19	1/1/2020	06:00	55	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
20	1/1/2020	07:00	58	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
21	1/1/2020	08:00	60	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	
22	1/1/2020	09:00	62	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	
23	1/1/2020	10:00	65	24																

Dixon Pit

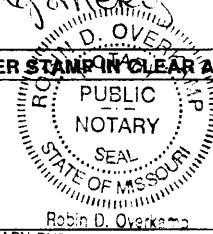
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By my signature, I attest to the following:

1. All statements made on this Mine Plan Form are correct, complete and true, to the best of my knowledge.
2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.790, RSMo 2001, and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
3. I have obtained the approval of all landowner's (for all lease agreements made after August 28, 1990 on leased land) for all proposed post-mining land uses.
4. I have obtained the approval of all landowner's, (for all lease agreements made after August 28, 1990 on leased land) for all proposed seed mixtures.
5. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

SIGNATURE OF APPLICANT <i>Libby W. Porter</i>		TITLE VP OPERATIONS		DATE 3/17/04
NOTARY PUBLIC EMBOSSEER NOT VALID UNLESS NOTARIZED	STATE Missouri		COUNTY (OR CITY OF ST. LOUIS) Montgomery	
	SUBSCRIBED AND SWORN BEFORE ME, THIS 17 DAY OF March YEAR 2004		USE RUBBER STAMP IN CLEAR AREA BELOW. 	
	NOTARY PUBLIC SIGNATURE <i>Robin D. Overkamp</i>	MY COMMISSION EXPIRES 10-9-05		
	NOTARY PUBLIC NAME (TYPED OR PRINTED) Robin D. Overkamp			
FOR DEPARTMENT USE ONLY				
APPROVED BY <i>Robin D. Overkamp</i>		DATE APPROVED 9-30-04		NOTARY PUBLIC - STATE OF MISSOURI PERMIT NUMBER 0946 MY COMMISSION EXPIRES OCT. 9, 2005
PERMIT NO.		SITE NUMBER/NAME Dixco		

DENIS & GERALD ENGEMANN
486-3322



- * DUMP TRUCK HAULING
- * EXCAVATING
- * GRAIN HAULING

TRI-COUNTY TRUCKING & EXCAVATING — INC —



HWY 100W • HERMANN

IF NO ANS CALL 486-3288
OR 486-3685

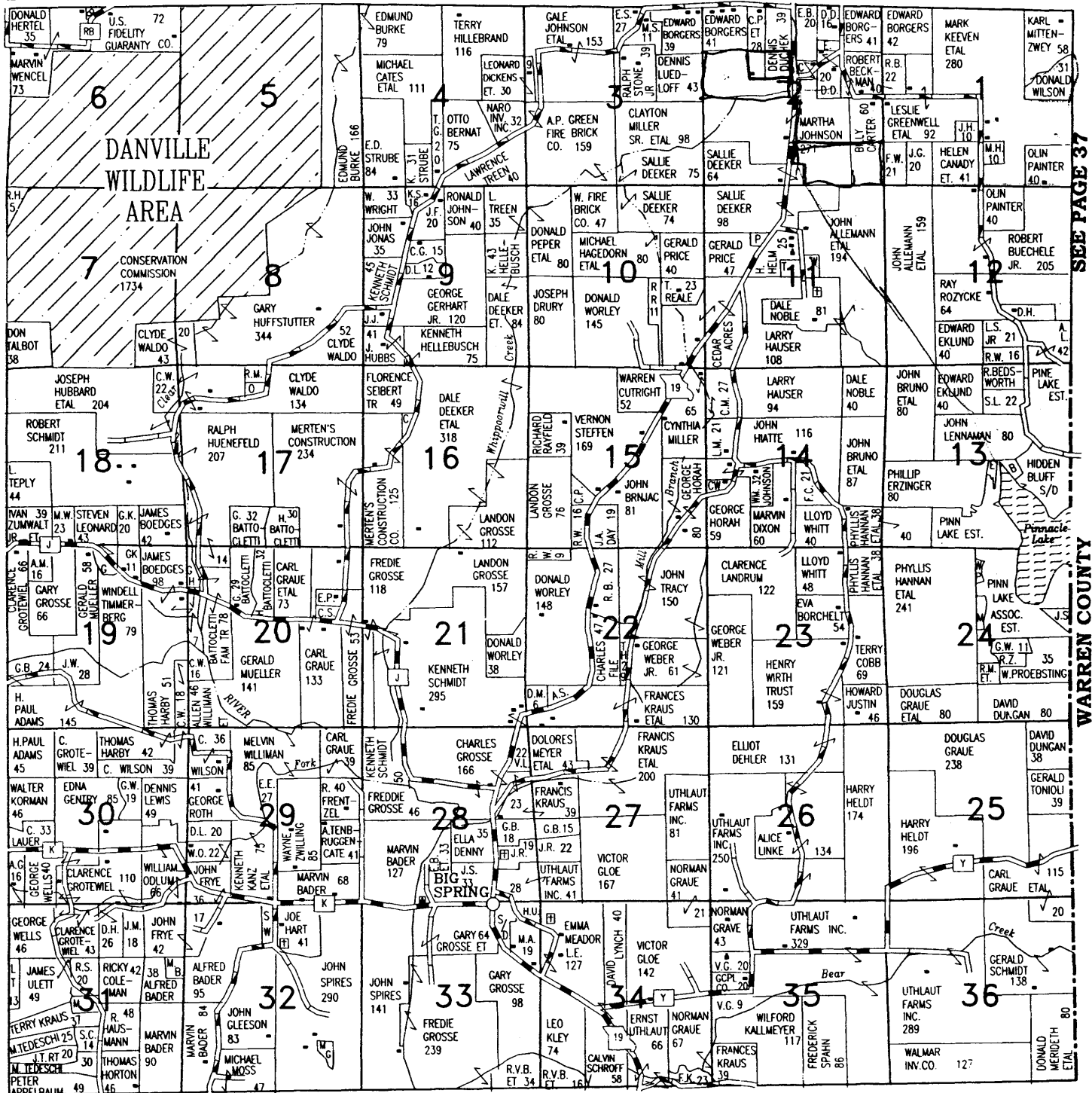


- * BASEMENTS
- * LAKES
- * LIVESTOCK HAULING

SEE PAGE 27

TOWNSHIP 47N • RANGE 5W

SEE PAGE 33



SEE PAGE 37

WARREN COUNTY

SEE PAGE 41

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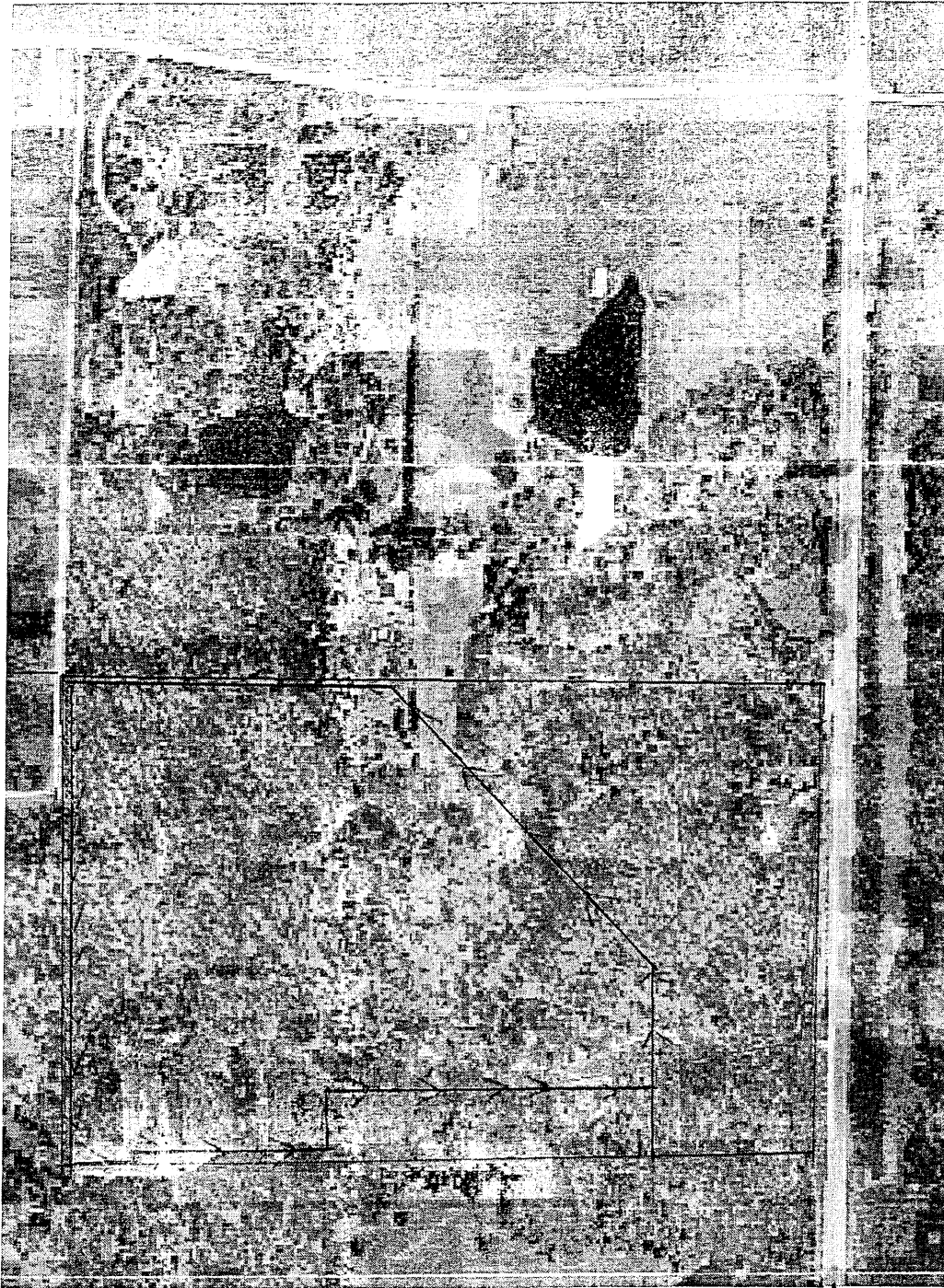
Christ Minerals LLC
Dixon P.T. #946

7/5/04

Range 5W, Section 2,
Township 47, Montgomery County

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— Permitted Area - 30 acres

→ Area to be mined

— Future Lake Site

300'

Surface Rights Owned by - Bill Saunders and Claude Patterson

0 300 600
feet